INNOVETA technologies

Product Brief: Veta™ iHA Series – Half Brick

Veta™ iHA Series DC/DC Power Modules
48V Input, 60A Output
Half Brick

Its **86.5% efficiency** and superior thermal performance make the Veta™ Family of power modules ideally suited for power-hungry applications in demanding thermal environments. This rugged building block is designed to serve as the core of your high reliability system. A wide output voltage **trim range, -46 to +10%,** and remote sensing are standard features enhancing versatility. For a full-featured version of the Veta™ Half Brick, including active current sharing, see the iHD product brief.

Features

- **Standard Half Brick footprint**
- **High efficiency, typical 86.5%**
- **Wide output trim voltage**
- **True 60A product at 1.8V output**
- **Industry-leading output power: 108W**
- **Monotonic start-up**
- **Starts with a pre-biased output**
- **Basic insulation – 1500 Vdc**
- Auto-recovery protection:
  - o Input under and over voltage
  - o Current limit
  - o Short circuit
  - o Thermal limit
- Latched output over voltage
- Optional auto-recovery output over voltage
- High reliability open frame, surface-mount construction
- Baseplate for improved thermal management
- Constant switching frequency
- Optional 0.110” pin length
- Safety agency approvals pending
- Multiple patents pending

Base Product Code	Input Voltage	Output Voltage	Output Current	Efficiency
iHA48060A018V	36-75V	1.8V	60A	86.5%

Typical Performance

Input Characteristics		
Operating input range	36-75V	
Transient input voltage	100V	100mS max
Turn-on voltage	34V	
Turn-off voltage	32V	
Start-up time	80 mS	On/Off to 90% Vout
Maximum input current	3.7A	Input 0-75V, Io,max
Output Characteristics		
Output voltage tolerance	+/- 3% max	Over line, load, and temp to end of life
Efficiency	see product table	Full load
Line regulation	2 mV	Over rated input
Load regulation	6 mV	Over rated load
Output voltage adjustment	54%-110%	%Vout,nom
Output ripple	50 mVp-p	20MHz bandwidth
Dynamic response Transient voltage Recovery time	 100 mV 350 uS	Load step 25% of Io,max slew rate =0.1A/us
Ripple frequency	300 kHz	Fixed
Protection		
Current limit inception	120% of Io,rated	
Short circuit	Continuous protection	Auto-recovery (AR) hiccup
Output over voltage	136% of Vout,nom	Latch (AR-optional)
Thermal shutdown	120C	Auto recovery hiccup
Environmental		
Operating temperature	-40C to 120C	Measurement point in full datasheet

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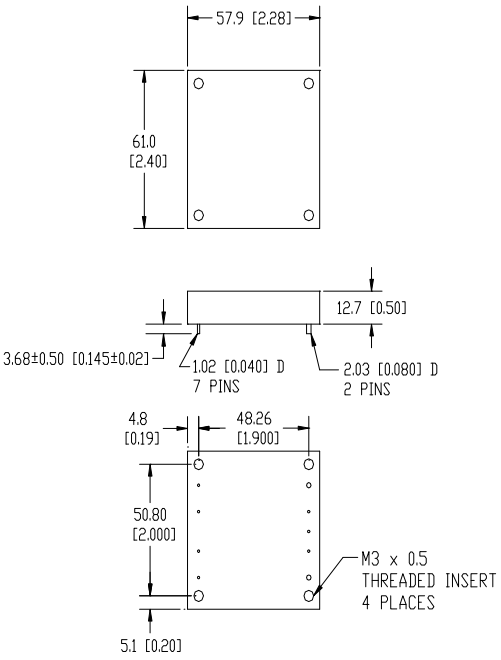

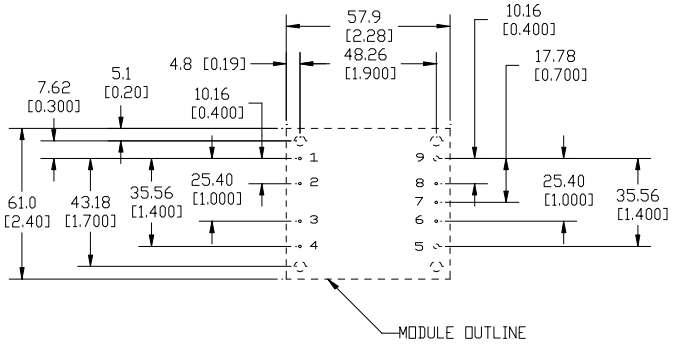

Top view - Footprint

PIN	FUNCTION	PIN	FUNCTION
1	Vin (+)	7	Trim
2	On/Off	8	Sense (+)
3	Case (Omit Optional)	9	Vout (+)
4	Vin (-)		
5	Vout (-)		
6	Sense (-)		

Ordering Information

Product Identifier	Package Size	Platform	Input Voltage	Output Current/ Power	Output Units	Main Output Voltage	# of Outputs		Safety Class	Feature Set
i	H	A	48	060	A	018	V	-	0	00
Innoveta Technologies™	Half Brick	Veta™	36-75V	040 – 40 060 – 60	Amps	018 – 1.8V	Single			00 – Standard

Feature Set	On/Off Logic	Omit pin3	Output OVP	Pin Length
00	Positive	No	Latching	0.145”
01	Negative	No	Latching	0.145”
02	Positive	Yes	Auto-Recovery	0.145”
03	Negative	Yes	Auto-Recovery	0.145”
04	Positive	No	Latching	0.110”
05	Negative	No	Latching	0.110”
06	Positive	Yes	Auto-Recovery	0.110”
07	Negative	Yes	Auto-Recovery	0.110”

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